

is furnished with a few minute imbricated scales, similar to those which surround the ovule when very young: this stalk is thus probably a young shoot.

By those botanists who retain *Taxus* in Monadelphia, and who consider the rachis as the staminiferous column of a single flower, this genus will also be placed there; but the examination of the rachis, or male amentum of *Podocarpus*, indicates that it is composed of numerous flowers.

I shall only further remark, that with regard to the *Taxus nucifera*, to which Dr. Torrey alludes in his letter to me, all the figures and descriptions given by modern botanists appear to be borrowed from Kæmpfer (*Am.*, p. 814, t. 815), and Gärtner. The reticulated arillus inserted between the flesh and the nut resembles closely the fibrous part of the testa of *Torreya*. Gärtner remarks: "Corticis baccati figuram et descriptionem a Kæmpfero mutuatus sum: videant itaque alii num omnino clausus, anne saltem per maturitatem apice obturatus sit? Arillus, quem ad naturam delineavi, nihil aliud esse mihi videtur quam involucris carnosae membrana interna." But, whatever be the case with respect to the Japan plant, we cannot view in this light the testa of *Torreya*. Gärtner describes and figures the embryo as placed at the base of the albumen; but he does the same in *Taxus baccata*, which we know to be incorrect. Dr. Torrey mentions that the male flowers are those of a *Taxus*; but as his specimens (as likewise those in my herbarium) were collected by Dr. Wallich in Nepal, distributed by him under No. 6054 of his Catalogue, and considered by that eminent botanist as but *doubtfully* the same as Kæmpfer's species, we may still look on the true *T. nucifera* as involved in great obscurity, as to both kinds of flowers.

XIII.—On the Genus *Procyon*, with a Description of two new Species. By Prof. F. A. WIEGMANN*.

I HAVE been induced to publish these few observations in order if possible to obtain a more accurate account of the country of the species, which would fix their geographical range, this being one of the main objects of special zoology. The two new

* Extract from Wiegmann's Archiv für Naturgeschichte, Part IV. 1837.

species are in the Museum of Berlin, and drawings of them will shortly appear in Prof. A. Wagner's continuation of Schreber's Mammalia.

In order to avoid any mistakes I will here give the diagnoses of the five species of Raccoons, with short descriptions, without entering into the various errors of synonym which are found here and there in zoological writings.

1. *Procyon Lotor*.

P. flavescenti-griseus, nigro variegatus, pedibus flavescenti-griseis, cauda mediocri, laxa, fulvescenti, apice annulisque sex integris fusco-nigris. America septentrionalis.

Length of head and body in male, 2 f. $\frac{1}{2}$ " ; of tail, 10" ; of the head from the point of the snout to behind the ear, 5" ; of the snout from the front angle of the eye to the point of the nose, 2" ; breadth of snout before the ocular cavities, 1" 6" ; at the canine teeth, 1" 1" ; length of ears, 2" 1" . Female : length of head and body, 1 f. 8" ; of tail, 9 $\frac{1}{2}$ " .

Colour of the body yellowish grey with a mixture of blackish brown. The bristles at the basis brown, in their middle yellowish grey, the upper half black, which produces the blackish brown colour upon the back and on the sides. The fur is of a greyish brown ; the band running from the forehead to the tip of the nose, as also that surrounding the eye, are blackish brown. The snout is rather pointed; the obovate ears are almost half as long as the body.

2. *Procyon Hernandezii*, Wagl.

Albido-griseus, fusco variegatus, pedibus fuscis, cauda mediocri, fulvescente, apice annulisque 6, infra subinterruptis (?) fusco-nigris. Patria, Mexico.

Length of the body to the extremity of the tail (in a young animal), 17" ; of the tail, 7" ; of the ear, 1" 6" . The distance between the front angle of the eye and the extremity of the snout, 1" 6" .

Wagler was the first to distinguish this species from the common North American raccoon, to which it is very similar, and to which it had been referred. It differs chiefly by its dark brown colouring of the feet, which in *P. Lotor* are constantly of a dirty whitish grey. A more accurate knowledge of this species is very desirable.

3. *Procyon brachyurus*, n. sp.

Albido-griseus, nigro-fusco variegatus, pedibus griseo-albidis, cauda brevissima, densissime pilosa, fulvescente, annulis 6 confertis, nigro-fuscis,

inferne interruptis, apice extus fulvescenti, medio nigra. Patria, Antillæ?

Distance between the eye to the extremity of snout, 1" 10^{'''}; breadth of snout at the canine teeth, 1" 2^{'''}; breadth of snout before the ocular cavities, 1" 10^{'''}; length of ears, 2" 1^{'''}; length of head, 4½"; head and body, 1 f. 9"; of tail, 5".

I have named this species *brachyurus* from the remarkable shortness of the tail, which is densely covered with close hairs, and is rather thinner than in *P. Lotor*, of light ochre yellow colour, with six bands surrounding the upper surface of the tail, being interrupted on the yellowish white under side, and only indicated by a darker ochreous yellow diagonal spot. The form of the snout is very remarkable, being shorter, thicker, more obtuse and flatter than in *P. Lotor*. This species has the general colouring of the common raccoons.

4. *Procyon obscurus*, n. sp.

Supra e badio nigricans subunicolor, nitore pilorum eximio, infra cinereo-fuscus, pedibus fusciscenti-griseis, cauda mediocri, densa, supra unicolore, subtus cinereo-fusca annulisque nigris sursum evanescentibus semicincta. Patria ignota.

Length of head and body, 2 f. 1" 4^{'''}; of head to behind the ears, 4¾"; of ears, 1" 8^{'''}; of snout from the front angle of the eyes, 1" 8^{'''}; of tail, 9¾"; circumference of tail, in middle, 7"; breadth of snout before the ocular cavities, 1" 10^{'''}; at the canine teeth, 1"; length of hind feet, 3¾".

The colour of the upper part of the body dark brown; upon the back of the head, nape, shoulder and fore part of the back more of a black brown; upon the hinder part and crupper, through a mixture of many chestnut-brown hairs, becoming more of a chestnut-brown. The contour hairs of the back black-brown or chestnut-brown, with a very lively lustre. The fur thick, greyish brown. The inside of the ears and their upper exterior edge with whitish hairs. The stripe over the eyes to the cheek a yellow brownish grey. The middle stripe upon the snout, and the cheek spot encompassing the eye, descending to the throat, black brown; sides of snout and chin greyish white, with a yellow brownish intermixture. The fore and hind legs dark brown. The fore and hind feet light brownish grey. The tail is not quite half the length of the body, is cylindrical, covered thickly with hair, and appears from this circumstance thinner than that of the common raccoon. The

upper part is of the same colour as the back, with a mixture of several single long bright fox red hairs; the lower part is greyish brown, surrounded on the upper side by four black bands not quite so distinct, the last of which almost passes into the black end of the tail. The snout is shorter than that of the *Lotor*, without being thicker and broader on that account. The oval ears are shorter, and measure only one third of the length of the head. The fore and hind legs are thinner, more slender than in *P. Lotor*, from which it appears longer legged than the grey species. The soles of the hind feet not bare to the heel, smaller than in *P. Lotor*; the heel covered with hair.

5. *Procyon cancrivorus*, Ill.

Supra cinereo-fulvus, fusco irroratus, subtus albicans, capite nuchaque canescentibus, macula oculum cingente fusco-nigra, parva, in genam haud porrecta, cum opposita supra naribus in rostro medio conflente, fascia superciliari alba, genis fuscescenti-cinereis, antibrachiis cruribusque fuscis, pedibus digitisque subrasis (parce pilosis) e fusco-cinereis, cauda gracili, griseo nigroque annulata. America meridionalis.

Length of body, 2 f.; tail somewhat above 1 f.

The descriptions which authors have given us of *Procyon cancrivorus* do not at all agree. Compared with *Procyon Lotor* it appears higher legged, as the Prince of Neuwied had already observed in his description of this animal; it has a much shorter ear, shorter claws, and the feet are but thinly covered with hair. The hair of the body is also different; the fur is less developed, the bristles shorter and stiffer: the fore-feet between the knee and the foot are dark brown; the four feet are more of a brownish grey. The circumference of the mouth whitish; a white band passes from the forehead over the eye to the cheek. The smallness of the blackish brown mark surrounding the eye, which in the other species descends lower than the cheeks, but in this does not even reach them, besides its mixing on the back of the snout with that of the other side, is especially characteristic for this species, as was already noticed by Fischer. The tail in our specimen has the colour of the back; then follow six black bands, which alternate with as many yellowish white grey bands: its tip is black.